

REMARKS

This amendment is submitted in an earnest effort to bring this case to issue without delay.

Applicant wishes to reiterate his claim to the benefit of his US priority date of 7 June 2002 pursuant to the International Convention. Applicant has made of record a certified copy of US Provisional Patent Application 60/386,582 filed 7 June 2002 in the file of PCT/EP 03/05980 filed 6 June 2003 of which the instant application is the U.S. National Phase. The Examiner is respectfully requested to acknowledge that the Applicant has perfected his right of priority.

Applicant has added new claims 25 through 28. Antecedent basis for the new claims may be found in the application on page 11, lines 6 through 10 and in the specific examples. Applicant has also amended claims 1,4, 9 through 12, 17, 21, and 22 to correct some minor informalities regarding improper dependencies. Claim 2 provides the antecedent basis necessary for the alkyl groups having 1 to 8 carbon atoms as now presented in claim 1 with respect to the group II compounds making up component (a). Thus claims 1, and 3 through 28 are now in this application and are presented for examination.

Applicant believes that all of the amendments made to claims 1,4,9 through 12, 17, 21 and 22 remove all of the bases for rejections set forth by the Examiner under 35 USC 112, second

paragraph. Thus no rejection of any claim now presented, claims 1 and 3 through 28, should be maintained under 35 USC 112, second paragraph as indefinite.

Applicants note that the Examiner has rejected claims 1,2,8,9,18 and 24 under 35 USC 102 as anticipated by BOSCH et al, claims 5 through 7, 10 through 17, and 19 under 35 USC 103 as obvious in view of BOSCH et al, claims 4, 21 and 22 as obvious under 35 USC 103 in view of BOSCH et al and HEATH et al, and claims 3 and 23 as obvious under 35 USC 103 in view of BOSCH et al, HEATH et al, and BERNIER et al. Applicant believes that there is subject matter within the scope of all of these claims that is patentably distinguishable over all of the cited prior art references, taken individually or in combination. However, Applicant at this time wishes to concentrate on the synergistic insect-attracting ability of a particular combination of ingredients in a particular molar ratio. Those particular ingredients include lactic acid, caproic acid and ammonia, and the molar ratio for these three ingredients is respectively 1: 0.5 - 50: 0.05 to 5. Applicant has covered compositions containing these three active ingredients in this particular molar ratio in new claims 25 and 26.

Applicant has found that when compositions containing these three active ingredients in combination are applied to an environment, that this combination of ingredients will attract blood-sucking arthropods such as mosquitoes, to a far greater extent than when either each of the three individual ingredients:

lactic acid, caproic acid and ammonia, is so applied separately to the same environment. Furthermore when the insect-attracting effects of each of the three individual ingredients are added together, Applicant has found that the insect-attracting effect so obtained of the three combined ingredients is greater than the sum of the insect-attracting effects of the three individually applied insect-attracting compounds. Thus Applicant has found that the combination of the three active ingredients within this range results in a synergistically effective insect-attracting composition.

Applicants is aware that the BOSCH et al reference discloses that lactic acid per se is an insect-attracting compound and that the insect-attracting capability of lactic acid may be enhanced by adding one or more fatty carboxylic acids and/or ammonia. The Examiner has cited BOSCH et al for this particular purpose and has discussed the disclosure in BOSCH et al on pages 6 through 9 of the office action. The Examiner points out that BOSCH et al discloses insect-attracting compositions that contain lactic acid, and fatty carboxylic acids over a wide range of carbon counts, including C₅ to C₈ carboxylic acids, which would encompass Applicant's caproic acid with six carbon atoms. See page 325, right hand column, under "Responses to Combinations of Fatty Acids with Lactic Acid." In fact tests using lactic acid together with a C₆ fatty carboxylic acid are disclosed in Figure 2 at the top of page 326 of BOSCH et al. Applicant points out, however, that while the

BOSCH et al reference further on page 325, right hand column, at the bottom, tests of combination of lactic acid, fatty carboxylic acid, and ammonia as insect attractants, and specifically mentions C₅ to C₈ carboxylic acids, there is no specific disclosure in the reference of caproic acid as the fatty acid in combination with lactic acid and ammonia.

Applicant now turns to Figure 4 at the top of page 328 of BOSCH et al. There BOSCH et al present test data showing the overall ability of combinations of lactic acid, ammonia with either a C₃ fatty carboxylic acid, a C₅ fatty carboxylic acid, or a combination of the C₃ and the C₅ carboxylic acids. According to the data in Table 4, a combination of lactic acid with either a C₃ or a C₅ fatty carboxylic attracts about 50% of the mosquitoes tested. When both the C₃ and the C₅ carboxylic acid are employed together with the lactic acid, there is an improvement from a rate of 50% attractiveness to about 68% attractiveness.

Applicant has found, however, that when he tested the specific combination of lactic acid, caproic acid and ammonia according to the molar ratio set forth in claim 25 now presented that the rate of attractiveness for the mosquitoes was consistently in the 85% range, a significant improvement over the best showing according to Figure 4 in BOSCH.

Applicant now presents the results of his tests showing the synergistic insect-attracting ability of his compositions containing lactic acid, caproic acid and ammonia in a molar ratio of 1: 0.5 - 50: 0.05 to 5. Applicants is presenting these results in a Declaration Under 37 CFR 1.132 that accompanies this amendment. Based upon the data submitted in the Declaration Under 37 CFR 1.132, Applicant concludes that not only are the compositions according to the present invention as covered in claims 25 through 28 synergistic insect-attracting compositions, but furthermore the level of synergism is surprisingly high in terms of what one would expect from reading the closest prior art, namely, BOSCH et al, Figure 4.

Applicant also points out that in the BOSCH et al reference, the Applicant himself is the second named author, and that the Applicant is thoroughly familiar with the test procedures and results set forth in the BOSCH et al reference.

In view of the above Applicant believes that claims 25 through 28 now presented are patentably distinguishable over BOSCH et al and that no rejection of claims 25 through 28 should be maintained under 35 USC 103 in view of BOSCH et al.

Applicant notes that the Examiner has cited the HEATH et al US Patent 5,907,923 and the BERNIER et al published US Patent Application 2002/0028191. The Examiner has cited HEATH et al for its disclosure of a system for trapping fruit flies where the trapping system is baited with ammonia, acetic acid and putrescine. HEATH et al contains no disclosure or suggestion of a synergistic insect-attracting composition consisting essentially of lactic acid, caproic acid and ammonia, where the molar ratio for these three ingredients is respectively 1: 0.5 - 50: 0.05 to 5. The Examiner has cited BERNIER et al for its disclosure that aryl compounds may be combined with lactic acid for providing improved compositions for attracting arthropods. Once again there is no disclosure or suggestion of a synergistic insect-attracting composition consisting essentially of lactic acid, caproic acid and ammonia, where the molar ratio for these three ingredients is respectively 1: 0.5 - 50: 0.05 to 5. Accordingly no combination of BOSCH et al with HEATH et al, BERNIER et al or both provides any basis to reject claims 25 through 28 as obvious under 35 USC 103.

Applicant believe that at the least claims 25 through 28 are patentable over the cited prior art. Applicant encloses a petition to obtain a one month extension of the term for response (small entity) and authorization to charge the cost of obtaining the extension of the term to the credit card of the undersigned attorneys.

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Enclosures:

Declaration Under 37 CFR 1.132
(unsigned) (efile)
Extension (one month) small entity (efile)